
Division 6

SECTION 06100**ROUGH CARPENTRY****PART 1 - GENERAL****1.01 SUBMITTALS**

- A. Certification
 - 1. Preservative treated wood: Submit certification by treating plant stating chemicals and process used, net amount of salts retained, and conformance with specified standards.
 - 2. Fire-retardant treatment: Submit certification by treating plant that fire retardant treatment materials comply with governing ordinances and that treatment will not bleed through finished surfaces.

1.02 DELIVERY, STORAGE, AND HANDLING

- A. Immediately upon delivery to job site, place materials in areas protected from weather.
- B. Store materials a minimum of 4" above ground on blocking and cover with protective waterproof covering. Provide for air circulation and ventilation.
- C. Store no seasoned materials in wet or damp portions of building.
- D. Protect sheet materials from breaking corners and damaging surfaces.

1.03 QUALITY CRITERIA

- A. Grading rules of the following association apply to materials furnished under this section:
 - 1. Southern Pine Inspection Bureau (SPIB).
 - 2. West Coast Lumber Inspection Bureau (WCLB).
 - 3. Western Wood Products Association (WWPB).
 - 4. Redwood Inspection Service (RIS).
- B. Plywood grading rules: Softwood plywood - Construction & Industrial - Product Standard PS-1-74.
- C. Grade Marks: Identify all lumber and plywood by official grade mark.
 - 1. Lumber: Grade stamp shall contain symbol of grading agency, mill number or name, grade of lumber, species or species grouping or combination designation, rules which graded, where applicable, and condition of seasoning at time of manufacture.
 - 2. Softwood plywood: Appropriate grade trademark of the American Plywood Association indicating type, grade, class and identification index and inspection and testing agency mark.
- D. Preservative treated materials: Meeting specified standards of the American Wood Preservers Association (AWPA) and American Wood Preservers Bureau (AWPB), as indicated.

PART 2 - PRODUCTS**2.01 LUMBER**

- A. Dimensions: Indicated lumber dimensions are nominal. Actual dimensions shall conform to industry standards established by the American Lumber Standards Committee.
- B. Moisture content:
 - 1. Untreated and preservative treated lumber and plywood shall have a 19% maximum moisture content, except materials to receive an architectural finish shall have a 12% moisture content.
- C. Surfacing: Surface four sides (S4S).
- D. Framing lumber:
 - 1. Light framing: General framing, plates, blocking, furring, bracing and nailers shall be Standard Grade or Better Southern Pine or Western Lumber.

2.02 SHEET MATERIALS

- A. Plywood:
 - 1. Interior wall surfaces: B-D, INT-APA, Group I, thickness indicated.

2.03 PRESERVATIVE TREATED MATERIALS

- A. Lumber: All lumber in contact with concrete slabs, exterior masonry walls, or in conjunction with the roofing system shall be pressure treated in accordance with AWPB-LP-2, CCA Types "A" or "C".
- B. Moisture content: Treated lumber shall be re-dried after treating to a maximum moisture content of 19%.

2.04 HARDWARE

- A. Provide nails, bolts, nuts, washers, screws, expansion bolts, clips, power actuated fasteners and similar hardware necessary for complete installation of rough carpentry items. Fasteners for exterior use shall be hot-dip galvanized.
- B. Fasteners in contact with treated lumber shall be stainless steel or hot-dip galvanized.

PART 3 - EXECUTION**3.01 SHEET MATERIAL INSTALLATION**

- A. Attach security ceiling underlayment with face grain perpendicular to supports. Terminate panels over supports. Stagger end joints of adjacent panels. Provide metal stud blocking between support channels at panel edges.
 - 1. Allow 1/16" space between all edges for expansion and contraction.
 - 2. Attach plywood using 1" Type S panhead screws at 6" o.c.
- B. Install interior plywood over interior studs in full height sheets with tight butted joints. Sand joints if required to obtain joints without offsets.

END OF SECTION

SECTION 06300**FINISH CARPENTRY AND MILL WORK****PART 1 - GENERAL****1.01 SUBMITTALS**

- A. Shop Drawings:
 - 1. Submit for casework, standing and running trim, fabric panels, paneling, shelving, and miscellaneous ornamental work.
 - 2. In addition to the requirements of Section 01300, Submittals, shop drawings shall include the following:
 - a. Dimensioned plans and elevations, including field dimensions, and large scale details.
 - b. Wood cut and species.
 - c. All attachment devices, finish hardware, and other components.
 - d. Coordination details for all electrical, plumbing and mechanical devices.
 - e. Blocking necessary for securing the finished woodwork.
 - f. Shop drawings shall certify that this woodwork shall be manufactured in accordance with the Architectural Woodwork Institute's (AWI) "Quality Standards," latest edition.
 - 3. Samples:
 - a. Wood Samples: Submit the following samples for each species, cut and finish of architectural woodwork:
 - (1) A full size section of each type counter top 12" long.
 - (2) Coordinate sample submittals with Section 09900, Painting, for field applied finishes.
 - b. Plastic laminate: Submit manufacturer's standard color and pattern selections to Owner's Project Manager for selection.
 - c. Hardware Samples: Submit samples of proposed hinges and exposed hardware; one of each type and finish, properly labeled as to its use on this project. Samples will be returned to Design-Builder.
- C. Product Data: Submit product data for hardware and other items not manufactured by the woodwork fabricator with the products clearly indicated, including product number and finish. Include description of the product's use in the Work. Submit with shop drawings.
- D. Certificates: At the time of the installation, the woodwork fabricator shall submit written certification that the Work installed complies with quality grade and all other requirements stated herein.
- E. Submittal Schedule: The woodwork fabricator shall develop a schedule with the Design-Builder for the timely approval of submittals. Submit schedule within 20 working days after the award of this contract to the Owner's Program Manager for approval.

1.02 DELIVERY, STORAGE AND HANDLING

- A. Delivery: Materials shall be delivered to the site by the woodwork fabricator in undamaged dry condition, stored in fully covered, well ventilated areas, and protected from extreme changes in temperature and humidity. Required humidity and temperature shall be stabilized prior to the delivery and maintained until the date of Substantial Completion.
- B. Protection: Store in a dry place. Store materials a minimum of 4" above ground on framework or blocking and cover with protective waterproof covering. Provide air circulation and ventilation. Store in dry, conditioned space. Woodwork shall be covered immediately upon arrival at the job site. Cover woodwork after installation for protection.

1.03 QUALITY CRITERIA

- A. Industry Standards:
 - 1. The Architectural Woodwork "Quality Standards," latest edition, by the Architectural Woodwork Institute, shall apply to the Work, and by reference are hereby made a part of this specification, except where more stringent requirements listed herein.
 - 2. Any reference to premium, custom or economy grades in this section shall be as defined in the latest edition of the AWI "Quality Standards".
 - 3. Any item not given a specific quality grade shall be custom grade as defined in the AWI "Quality Standards".
- B. Preservative-treated material: Meeting specified standards of the American Wood Preservers Association (AWPA) and the American Wood Preservers Institute (AWPI).
- C. Grade marks: Identify lumber and plywood by official grade mark.
 - 1. Lumber: Grade stamp shall contain symbol of grading agency, mill number or name, grade of lumber, species or species grouping or combination designation, rules under which graded, where applicable, and condition of seasoning at time of manufacture.
 - 2. Plywood: Appropriate grade trademark of the American Plywood Association (APA) or agency approved by the Architectural Woodwork Association (AWI). Indicate type, grade, class and identification index and inspection and testing agency mark.
 - 3. Grade marks on components to be exposed to view shall be located so as to be concealed in finished work.
- D. All work specified in this section shall be fabricated and installed by a single source.

1.04 JOB CONDITIONS

- A. Field Dimensions:
 - 1. Take field measurements to ascertain exact woodwork sizes. Indicate exact dimensions on shop drawings. Notify Design-BUILDER in writing in case of discrepancies. Design-BUILDER and woodwork fabricator shall cooperate to establish and maintain critical field dimensions.
 - 2. Woodwork fabricator shall be responsible for details and dimensions not controlled by job conditions and shall notify Design-BUILDER within 35 working days after the award of this Contract of those critical dimensions that will be required of other subcontractors for proper installation of this work.
- B. Coordination:
 - 1. Coordinate equipment to be fitted into the woodwork requiring cut-outs filler pieces and careful fitting.
 - 2. Coordinate installation of electrical, mechanical and plumbing items into woodwork with contractor.
 - 3. Coordinate installation of fixed lites with Section 08800, Glazing.
- C. Install no woodwork until spaces are enclosed, dry and capable of being heated. Maintain minimum temperature of 60° F. and maximum relative humidity of 25 to 55 percent for 72 hours before beginning installation, during installation and afterwards until Date of Substantial Completion.
- D. Woodwork shall be allowed to acclimatize in the spaces to be installed a minimum of 48 hours prior to installation.

- E. Do not install woodwork in areas where painting, sanding, grinding or wet work is not sufficiently complete to guarantee the protection of the woodwork. No plumbing work shall be performed in areas where woodwork is installed.

PART 2 - PRODUCTS

2.01 GENERAL REQUIREMENTS

- A. Dimensions: Indicated lumber dimensions are nominal. Actual dimensions shall conform to industry standards established by the American Lumber Standards Committee and the grading rules writing associations.
- B. Surfacing: Surface four sides (S4S), unless otherwise indicated.
- C. Provide casework, shelving and other finish carpentry and millwork items as noted in the Pre-Architectural Program.

2.02 FASTENERS

- A. Nails shall be size and type best suited for the purpose in accordance with the requirements of the National Forest Products Publication on lumber and its fastenings.
- B. Screws for use where nailing is impracticable shall be of the size best suited for the purpose.
- C. Miscellaneous Fasteners and Anchors: Provide bolts, nails, screws, toggle bolts, brackets, cleats and similar fasteners as indicated or required to attach and secure work under this section.
- D. Anchor woodwork to anchors or blocking built-in or directly attached to substrates as required for a complete installation. Use concealed attachment. Except where prefinished matching fasteners heads are required, use fine finishing nails for exposed nailing, countersunk and filled flush with woodwork, and matching final finish where transparent finish is indicated.

2.03 MILLWORK HARDWARE

- A. Fabricator shall submit schedule for proposed hardware for Design-Builder's review and approval. Hardware will be standard of woodwork fabricator unless otherwise specified below. The following listed items establish the minimum quality standard for millwork hardware.
 - 1. Door and drawer pulls: Stanley Works, #4484. Screw hole spacing 4" o.c.
 - 2. Magnetic door catches: Knappe and Vogt Mfg. Co., #918 Alum.
 - 3. Cabinet hinges: Stanley Works, #1952 or #335, US26D.
 - 4. Concealed cabinet hinges: Soss Mfg. Co., #220.
 - 5. Closet rod: Knappe and Vogt Mfg. Co., #770-5 CHR, 1-5/16" diameter with #764 CHR flanges. Provide rod under wood shelf in coat closets.
 - 6. Recessed shelf standards and supports: Knappe and Vogt Mfg. Co., #255NP standard with #256 NP supports; nickel plated finish.
 - 7. Piano hinges: Stanley Works, #314-1/4; nickel plated finish.
 - 8. Cabinet drawer/door lock: National Lock, #C8053-14A, flush mounted.
 - 9. Shelf standards: Knappe and Vogt Mfg. Co., #80, bright zinc plated, varying lengths as required for specific installation.
 - 10. Shelf brackets: Knappe and Vogt Mfg. Co., #180; bright zinc plated, varying lengths as required for specific installation..
 - 11. Magnetic touch latch: Amerock.

- B. The Contractor will provide a key schedule for locks when shop drawings are reviewed.

2.04 FABRICATION

- A. Fabricate items of woodwork in mill or shop so far as practical.
- B. Items too large for transportation in one unit shall be completely assembled and fitted in the mill or shop, then demounted and shipped in sections for reassembly on the job. Items which cannot be manufactured in one piece shall be so noted on shop drawings. Where counter tops cannot be furnished in single length, join using concealed compression type fastener.
- C. Woodwork items which are fitted to other work shall have allowances for scribing.
- D. Pre-Cut Openings: Fabricate architectural woodwork with pre-cut openings, where possible, to receive hardware, appliances, plumbing fixtures, electrical work and similar items. Locate openings accurately. Use templates or roughing-in diagrams for proper size and shape. Smooth edges of cutouts and, where located in countertops and similar exposures, seal and finish edges of cutouts to match body of casework.

2.05 CASEWORK

- A. Casework for Plastic Laminate finish:
 - 1. AWI Quality grade: Custom.
 - 2. Types: Conforming to NEMA Standard LD-3-1975 as follows:
 - a. Horizontal applications and high usage exposure: Grade GP-50.
 - 3. Color as selected by Design-Builder from manufacturer's standard colors and as approved by Owner's Project Manager.
- B. Semi-Exposed Parts: Inside faces of doors and bottom of cabinets more than 30" and less than 42" above finished floor shall match exposed parts.
- C. Tops: Plastic laminate on particle board.
- D. Provide dust panels of 1/4" thick plywood or tempered hardboard above compartments and drawers, except where located directly below counter tops.
- E. Allow ample borders and edges to allow for subsequent scribing and trimming of woodwork for accurate fit.
- F. Casework: Construction of casework to be 3/4" paint grade plywood.

PART 3 - EXECUTION

3.01 WORKMANSHIP

- A. Install work in a manner consistent with the specified quality grade, plumb, level, true and straight within 1/8" in 10'-0". Shim as required using concealed shims.
- B. Finish work shall be smooth, free from abrasion, tool marks, raised grain, grade markings or similar defects on exposed surfaces.
- C. Field-Cut Openings: Woodwork fabricator shall coordinate with Design-Builder to provide cut-outs not cut in the shop as required by others and as indicated on Drawings.
- D. Cut work to fit unless indicated to be shop-fabricated to exact size.

- E. Distribute defects allowed in the quality grade specified to the best overall advantage when installing job assembled work.
- F. Complete the finishing work specified as work of this section to whatever extent not completed at shop or prior to installation of woodwork.
- G. Refer to Section 09900, Painting, for finishing of finish carpentry and millwork indicated to be painted in the field.

3.02 INSTALLATION OF STANDING AND RUNNING TRIM

- A. Trim and moldings: Install in single unjointed lengths for openings and for runs less than 10'0". For longer runs, use only one piece less than 10'0" in straight runs.
- B. Attach and secure members in place with uniform joints, providing for thermal and building movements. Install straight, plumb, level and with closely fitted joints.
- C. Nailing: Blind nail where possible. Use finishing nails where exposed.
- D. Anchoring: Secure work to anchors or blocking built-in or directly attached to substrate.

3.03 INSTALLATION OF CASEWORK

- A. Install millwork in a manner consistent with the specified quality grade, plumb, level, and true and straight within 1/8" in 10'0". Shim as required using concealed shims.
- B. Secure to grounds, stripping and blocking with countersunk, concealed fasteners.
- C. Touch up mill finished items as required, including refinishing necessitated by job fitting or attaching and repair of scratches and similar damages.

3.04 FIELD FINISHING OF PAINTED WOOD

- A. Thoroughly sand smooth and clean woodwork before any paint is applied. Fill all holes and crevices. .
- B. Color and final top coat shall match approved sample. Refer to Section 09900 - Painting, for specifications.

3.05 ADJUSTMENT, CLEANING, AND PROTECTION

- A. Protection:
 - 1. Protect finished and prefinished surfaces from work of other trades.
 - 2. Cover completed work with 4-mil polyethylene film protective enclosure, applied to allow easy removal and without damage to woodwork or adjoining work. Remove cover immediately before Date of Substantial completion.
- B. Prior to Date of Substantial Completion, examine work for damages. Repair or replace such damages to original condition.
- C. Clean wood, metal and accessory items using a neutral cleaner recommended by fabricator. Check and correct operating mechanism for proper operation. Adjust and lubricate hinges, catches and other operating hardware.

- D. Repair damaged and defective woodwork wherever possible to eliminate defects functionally and visually. Where not possible to repair properly, replace woodwork. Adjust joinery for uniform appearance.
- E. Clean woodwork on exposed and semi-exposed surfaces. Touchup shop-applied finish to restore damaged or soiled areas. Touchup and cleaning of the work under this contract shall be the responsibility of the woodwork fabricator.

END OF SECTION